

109TH CONGRESS  
2D SESSION

# S. 2196

To authorize the Secretary of Energy to establish the position of Assistant Secretary for Advanced Energy Research, Technology Development, and Deployment to implement an innovative energy research, technology development, and deployment program.

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## IN THE SENATE OF THE UNITED STATES

JANUARY 25, 2006

Mrs. CLINTON (for herself, Mr. REID, and Mr. BINGAMAN) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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## A BILL

To authorize the Secretary of Energy to establish the position of Assistant Secretary for Advanced Energy Research, Technology Development, and Deployment to implement an innovative energy research, technology development, and deployment program.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Advanced Research  
5       Projects Energy Act (ARPA-E) Act”.

1 **SEC. 2. ASSISTANT SECRETARY FOR ADVANCED ENERGY**  
2 **RESEARCH, TECHNOLOGY DEVELOPMENT,**  
3 **AND DEPLOYMENT.**

4 (a) ESTABLISHMENT.—

5 (1) IN GENERAL.—The Secretary of Energy  
6 shall establish in the Department of Energy the po-  
7 sition of Assistant Secretary for Advanced Energy  
8 Research, Technology Development, and Deployment  
9 (referred to in this Act as the “Assistant Sec-  
10 retary”), to be headed by, and to report to, the Sec-  
11 retary.

12 (2) QUALIFICATIONS.—The Assistant Secretary  
13 shall be an individual with—

14 (A) an advanced education degree in en-  
15 ergy technology; and

16 (B) substantial commercial research and  
17 technology development and deployment experi-  
18 ence.

19 (b) MISSION.—The mission of the Assistant Sec-  
20 retary is—

21 (1) to implement an innovative energy research,  
22 technology development, and deployment program  
23 to—

24 (A) increase national security by signifi-  
25 cantly reducing petroleum and imported fuels  
26 consumption;

1 (B) significantly improve the efficiency of  
2 electricity use and the reliability of the elec-  
3 tricity system; and

4 (C) significantly reduce greenhouse gas  
5 emissions; and

6 (2) to sponsor a diverse portfolio of cutting-  
7 edge, high-payoff research, development, and deploy-  
8 ment projects to carry out the program.

9 (c) EXPERIMENTAL PERSONNEL AUTHORITY.—The  
10 Assistant Secretary may staff the office of the Assistant  
11 Secretary primarily using a program of experimental use  
12 of special personnel management authority in order to fa-  
13 cilitate recruitment of eminent experts in science or engi-  
14 neering for management of research and development  
15 projects and programs administered by the Assistant Sec-  
16 retary under similar terms and conditions as the authority  
17 is exercised under section 1101 of the Strom Thurmond  
18 National Defense Authorization Act for Fiscal Year 1999  
19 (Public Law 105–261; 5 U.S.C. 3104 note), as determined  
20 by the Assistant Secretary.

21 (d) TRANSACTIONS OTHER THAN CONTRACTS AND  
22 GRANTS.—To carry out projects under this Act, the As-  
23 sistant Secretary may enter into transactions to carry out  
24 advanced research projects under this subsection under  
25 similar terms and conditions as the authority is exercised

1 under section 646(g) of the Department of Energy Orga-  
 2 nization Act (42 U.S.C. 7256(g)).

3 (e) PRIZES FOR ADVANCED TECHNOLOGY ACHIEVE-  
 4 MENTS.—

5 (1) IN GENERAL.—Subject to paragraphs (2)  
 6 through (4), the Assistant Secretary may carry out  
 7 a program to award cash prizes in recognition of  
 8 outstanding achievements in basic, advanced, and  
 9 applied research, technology development, and proto-  
 10 type development that have the potential to advance  
 11 the mission described in subsection (b) under similar  
 12 terms and conditions as the authority is exercised  
 13 under section 1008 of the Energy Policy Act of  
 14 2005 (42 U.S.C. 16396).

15 (2) COMPETITION REQUIREMENTS.—In car-  
 16 rying out this subsection, the Assistant Secretary  
 17 shall—

18 (A) use a competitive process for the selec-  
 19 tion of recipients of cash prizes; and

20 (B) conduct widely-advertised solicitation  
 21 of submissions of research results, technology  
 22 developments, and prototypes.

23 (3) MAXIMUM AMOUNT FOR ALL CASH  
 24 PRIZES.—The total amount of all cash prizes award-

1 ed for a fiscal year under this subsection may not  
2 exceed \$50,000,000.

3 (4) MAXIMUM AMOUNT OF INDIVIDUAL CASH  
4 PRIZES.—The amount of an individual cash prize  
5 awarded under this subsection may not exceed  
6 \$10,000,000 unless the amount of the award is ap-  
7 proved by the Secretary of Energy.

8 (f) ANNUAL REPORTS.—As soon as practicable after  
9 the end of each fiscal year for which the Assistant Sec-  
10 retary receives funds under subsection (h), the Assistant  
11 Secretary shall submit to the Committee on Energy and  
12 Natural Resources of the Senate and the Committee on  
13 Energy and Commerce, and the Committee on Science, of  
14 the House of Representatives a report on the progress,  
15 challenges, future milestones, and strategic plan of the As-  
16 sistant Secretary, including—

17 (1) a description of, and rationale for, any  
18 changes in the strategic plan;

19 (2) the adequacy of human and financial re-  
20 sources necessary to achieve the mission described in  
21 subsection (b); and

22 (3) in the case of cash prizes awarded under  
23 subsection (e), a description of—

1 (A) the applications of the research, tech-  
2 nology, or prototypes for which prizes were  
3 awarded;

4 (B) the total amount of the prizes that  
5 were awarded;

6 (C) the methods used for solicitation and  
7 evaluation of submissions and an assessment of  
8 the effectiveness of those methods; and

9 (D) recommendations to improve the prize  
10 program.

11 (g) RELATIONSHIP TO OTHER AUTHORITY.—The  
12 program under this Act may be carried out in conjunction  
13 with, or in addition to, the exercise of any other authority  
14 of the Assistant Secretary to acquire, support, or stimu-  
15 late basic, advanced, and applied research, technology de-  
16 velopment, or prototype projects.

17 (h) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated to carry out this Act—

19 (1) \$1,000,000,000 for fiscal year 2007; and

20 (2) \$2,000,000,000 for each of fiscal years  
21 2008 through 2011.

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